

Ms. Angela Sandoval, P.E.
Environmental Engineer
United States Environmental Protection
Agency, Region 9
75 Hawthorne Street (LND-4-2)
San Francisco, California 94105

Subject:

January 13, 2016 Transformer Oil Release at 301 Industrial Avenue, Lakeport, California NRC 1137977

Dear Ms. Sandoval:

On behalf of Pacific Gas and Electric Company (PG&E), Arcadis U.S., Inc. (Arcadis) has prepared letter report to provide a release cleanup summary and preliminary evaluation of whether polychlorinated biphenyls (PCB) concentrations have potential for unacceptable risk for human and biological receptors. This letter report is being submitted as a requirement of 40 CFR 761.61 (a)-(c).

INTRODUCTION

On January 13, 2016, a forklift operator with Wilson Construction Company (WCC), a contractor to PG&E, dropped a four-foot by four-foot plastic containment box with four PG&E transformers on an unpaved surface at their laydown yard, located at 301 Industrial Avenue (site, Figure 1) in Lakeport, California. The ceramic bushings on three of the four transformers were damaged and the three transformers released approximately 27 gallons of transformer oil on the unpaved surface. The transformer oil migrated offsite through storm water runoff and via two storm drain inlets (inlet north and south) to Lakeport Lagoon at the west edge of Clear Lake. The onsite and offsite areas of impacted soil and water, surface features, and spill and remedial response locations are presented on Figure 1.

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ENVIRONMENT

Date:

February 9, 2016

Contact:

Tonya Russi

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Our ref:

B0092700.0000

Transformer oil from the three transformers was collected and analyzed for PCBs using United States Environmental Protection Agency (USEPA) Method 8082. Results are listed below:

Transformer 1 – Westinghouse 10 5 kilo-volt-ampere (KVA) (PCB Aroclor 1260 at 288 milligrams per kilogram [mg/kg])

Transformer 2 - Allis Chalmers 10 KVA (PCBs not detected, less than 1.00 mg/kg)

Transformer 3 – Kuhlman 37.5 KVA (PCBs not detected, less than 1.00 mg/kg)

The liquid capacity of the Westinghouse 10 KVA transformer is eight gallons. A sampling pipet inserted half way inside the equipment indicated four gallons of oil remained in the bushing. Therefore, a maximum of four gallons of transformer oil with a PCB concentration of 288 parts per million (ppm) was released. Assuming a transformer oil density of 0.85 kilograms per liter (kg/L), the mass of PCBs released was approximately 3.7 grams.

RELEASE RESPONSE

Emergency response and remedial actions conducted to date to correct the impacts due to the transformer oil release are described in the attached timeline (Attachment A). As described in the timeline, the potentially impacted soil was visually identified and removed using excavators to a depth of approximately two feet below ground surface. Soil excavation boundaries, storm drain inlets, locations of oil absorbent booms, containment booms, and sample locations are presented on Figures 1 and Figure 2. A photo log is included as Attachment B.

Onsite Sampling

Excavation Area Confirmation Sampling. Between January 18 and January 26, 2016, Arcadis collected 387 confirmation soil samples from the excavation sidewalls and bottoms of the six excavations for analytical testing using USEPA methods 8082 (PCBs) and 8015 (total petroleum hydrocarbons - mineral oil range). Following soil removal, Arcadis collected confirmation bottom and sidewall samples using five foot grid patterns from excavation phases 2, 3, and 4 (Figure 2). Due to the large number of confirmation samples collected from these initial three phases and only one reported PCB detection (0.0033 mg/kg in Sample B-24), Arcadis increased the sampling grid to a ten foot grid pattern for subsequent excavation phases 1, 5, and 6 (Figure 2).

Analytical results of excavation confirmation soil samples are presented in Table 1. Locations of samples that were reported to contain TPH mineral oil concentrations above 500 mg/kg (eight locations) are presented on Figure 2.

- Excavation Phase 1
 - Completed January 15, 2016. Arcadis collected 2 bottom of excavation samples and 2 sidewall samples.
- Excavation Phase 2

- Completed January 18, 2016. Arcadis collected 60 bottom of excavation samples and 17 sidewall samples.
- Excavation Phase 3
 - Completed January 20, 2016. Arcadis collected 87 bottom of excavation samples and 18 sidewall samples.
- Excavation Phase 4
 - Completed January 21, 2016. Arcadis collected 118 bottom of excavation samples and
 55 sidewall samples.
- Excavation Phase 5
 - Completed January 25, 2016. Arcadis collected 5 bottom of excavation samples and 5 sidewall samples.
- Excavation Phase 6
 - Completed January 26, 2016. Arcadis collected 4 bottom of excavation samples and 6 sidewall samples.

Offsite Sampling

Water Sampling

Analytical results of water samples are presented in Table 2 and locations are presented on Figure 1. Following is a summary of the water sampling.

Two surface water samples at the Lakeport fresh water intake to identify whether the release extended to intake (Intake 001 and 002) collected on January 14, 2016.

Three initial surface water samples collected from south culvert outfall (R-001, 002. and 003) on January 14, 2016.

Two initial surface water samples collected from north culvert outfall (L-001 and L-002) on January 14, 2016.

One water sample collected following first pass of jetting south culvert (Culvert South Main R-001) on January 14, 2016.

One water sample collected following third pass of jetting south culvert (Culvert South R-002) on January 14, 2016.

One water sample collected following first pass of jetting south culvert (Culvert South Main L-001) on January 14, 2016.

One water sample collected following third pass of jetting south culvert (Culvert South L-002) on January 14, 2016.

One tap water sample collected from a spigot located at Lakeport Tire Store at 1901 South Main Street, which is just north of the release area, on January 14, 2016.

Three surface water samples collected in Lagoon from a residential pier off of Shoreview Drive on January 15, 2016.

A surface water sample from a puddle with a sheen located at the east end of the release property near the South Main St (SW-01) collected on January 25, 2016.

A surface water sample from a puddle with a sheen located near the release site (UG-01) collected on January 25, 2016.

Wipe/Chip Sampling

Analytical results of wipe and chip samples are presented in Tables 3 and 4 and locations are presented on Figure 1. Following is a summary of the sampling.

Three wipe and asphalt chip samples collected along S. Main Street (MS-1 through MS-3) on January 28, 2016.

Seven wipe and asphalt chip samples collected along S. Main Street (MN-1 through MN-7) on January 28, 2016.

Two samples collected north inlet and effluent on January 28, 2016 (Culvert-N-Ef and Culvert-S-NI).

Two samples collected south inlet and effluent on January 28, 2016 (Culvert -S-Ef and Culvert -S-SI).

Wipe Sampling

One sample collected north inlet and effluent on January 28, 2016 (Culvert -N-Ef).

One sample collected south inlet and effluent on January 28, 2016 (Culvert-S-Ef)

Sediment Sampling

Three sediment samples collected from the south culvert outfall on February 5, 2016. As discussed with the USEPA during a telephone call on February 4, 2016, sediment sample results will be reported under separate cover.

ASSESSMENT OF THE POTENTIAL FOR HUMAN AND ECOLOGICAL RISK

The potential for direct contact with PCB-impacted soil at the release site is expected to be minimal due to the fact that shallow soil with visual indications of transformer oil impacts to the surface was excavated to an approximate depth of two feet below ground surface and one foot beyond visual impacts. The excavation was backfilled with clean imported soil.

Soil Risk Evaluation

PCBs

The transformer oil released contained approximately 3.7 grams of PCB. Regional Screening Levels (RSLs) established by the USEPA for residential soil (USEPA 2015) are proposed as a screening level for onsite shallow soil. Detectable concentrations of PCBs were only reported in three out of 387 excavation confirmation soil samples. Aroclors 1260 (B-24, 0.0033 mg/kg), 1254 (B-156, 0.035 mg/kg), and 1248 (B-235, 0.069 mg/kg) were detected in three shallow soil samples, however, detected concentrations are below respective RSLs (Table 1).

Mineral Oil

The transformer oil released was highly refined mineral oil, which is very similar to food-grade mineral oil and detected in soils by laboratory analysis of total petroleum hydrocarbons (TPH) in mineral oil range. The mineral oil used in PG&E devices is a highly refined, technical-grade petroleum product that must meet the ASTM International Mineral Oil Production Standard. The ASTM Mineral Oil Production Standard requires removal of polar and aromatic compounds for proper performance of the oil. This refining process results in mineral oil with virtually no volatile organic compounds (VOC) or polynuclear aromatic hydrocarbons (PAH). VOC's such as benzene, toluene, ethylbenzene, and xylenes and PAH's are components of naturally occurring TPH, but these contaminants are removed during the mineral oil refining process (Tetra Tech, Inc. 1998).

There are no California-specific screening criteria for TPH concentrations in soil that are applicable to mineral oil. In the absence of California criteria for TPH as mineral oil, the onsite soil TPH as mineral oil samples will be screened against the Washington State Department of Ecology (2007) Concise Explanatory Statement and Responsiveness Summary for the Amendment of Chapter 173-340 WAC, Model Toxics Control Act Cleanup Regulation, which identifies a concentration of 4,000 mg/kg of mineral oil for unrestricted land use. Figure 2 presents locations of all samples (seven total) that contained TPH mineral oil concentrations above 500 mg/kg. One bottom of excavation sample (B-206) exceeds the TPH mineral oil screening level of 4,000 mg/kg.

Water Risk Evaluation

Sheen has not been observed in the Lakeport Lagoon (lagoon) since the initial release on January 13, 2016. Oil absorbent booms and containment booms were deployed on January 13 and 14, 2016. Oil absorbent booms and containment booms are in place and have been visually inspected twice a day since the time of the release. Booms are changed when sediment buildup is observed and or prior to storms. Boom change out dates are provided in Attachment A.

Surface water sample PCB results have been compared to Maximum Contaminant Levels (MCL) established by the California State Water Board (California State Water Board Table F-3, Attachment C) for PCBs in regulated drinking water is 0.5 micrograms per liter (μ g/L). PCB concentrations in all water samples collected to date are below the MCL of 0.5 μ g/L (Table 1).

Surface water sample PSB results have been compared to screening levels established by the California State Water Board (California State Water Board Table F-4, Attachment C) for PCBs in fresh water aquatic habitats and the standard is 0.014 μ g/L. Surface water samples collected during culvert pressure washing activities, residential pier samples, and samples collected from the lagoon are below the screening level of 0.014 μ g/L.

Concrete wipe sample PCB results have been compared to the Toxic Substances Control Act (TSCA) screening level of 10 μ g/100 square centimeters. PCB concentrations in all wipe samples collected are below the TSCA screening level.

WASTE DISPOSAL

During remedial activities associated with the transformer oil release, soil waste was stored in roll-off bins and waste water was stored in containment tanks. Waste water equipment was decontaminated in accordance with USEPA Standard 761.79 (b). Oil-water separation activities were completed by placing oil absorbent pads on top of the water tank. Waste water samples were collected on February 5, 2016 to confirm that any remaining PCB levels are less than those prescribed under 761.79 (1). If the analytical results meet the acceptance criteria of Seaport Environmental in Redwood City, California, it is planned to transport the waste water there for proper disposal. Waste manifests will be submitted under separate cover.

CONCLUSION

In conclusion, shallow soil from the release area and topographically downgradient impacted area removed to a depth of approximately of approximately two feet below ground surface. There were observations that the release reached storm drains along S. Main Street and outfalls leading to Lakeport Lagoon. Absorbent booms were deployed around storm drain inlets and within the Lagoon. PCB concentrations in water samples collected from the Lagoon and storm drain outfalls (during pressure washing) are below the California MCL of 0.5 µg/L and below the California screening level for PCBs in fresh water aquatic habitats which is 0.014 µg/L.

One bottom of excavation soil sample exceeds the TPH mineral oil screening level, however the remainder of the sample concentrations are below established USEPA RSLs and do not appear to pose a risk to human receptors. Confirmation sampling in the release impacted areas indicates the PCB release at 301 Industrial Avenue, Lakeport, California has been successfully contained and remediated. Arcadis will submit a closure report if this letter and cleanup standards are approved by the EPA.

RECOMMENDATION

As requested by the USEPA in their electronic message dated February 8, 2016, Arcadis will collect additional sediment samples at the north and south storm drain outlet. Three sediment samples will be collected near the storm drain outfall. The samples will be collected approximately one foot from the storm drain\ Lagoon water interface to evaluate if residual PCB's remain in the Lagoon as a result of the release.

REFERENCES

California Regional Water Quality Board San Francisco Bay Region (RWQCB). 2013. Environmental Screening Levels (ESLs). December. Available online:

http://www.waterboards.ca.gov.rwqcb2/water_issues/programs/esl.shtml

Tetra Tech, Inc. 1998. *Risk-Based Cleanup Goals in Mineral Oil in Soils at PG&E Substations*. Prepared_for Pacific Gas and Electric Company, Technical and Ecology Services. July.

United States Environmental Protection Agency (USEPA). 2015. Regional Screening Level Residential Soil Table. November. Available online: http://www.epa.gov/region9/superfund/prg/

Washington State Department of Ecology. 2007. Model Toxics Control Act Regulation and Statute.

If you have any questions or comments regarding this letter, please contact Tonya Russi of Arcadis at 916.865.3168 or by e-mail at tonya.russi@arcadis.com.

Sincerely,

Arcadis U.S., Inc.

Tonya Russi

Senior Environmental Scientist

Jonya Russ;

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Senior Engineer, P.E.

Copies:

Mr. John Woodruff, Pacific Gas and Electric Company

Mr. Brad Shelton, Central Valley Regional Water Board

Enclosures:

Tables

- 1 Soil Sample Analytical Results
- 2 Transformer Oil and Water Sample Analytical Results
- 3 Wipe Sample Analytical Results
- 4 Asphalt Analytical Results

Figures

- 1 Release Map
- 2 Excavation Map

Attachments

- A Timeline
- B Photo log
- C Screening Levels

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Tables

Table 1 - Soil Sample Analytical Results

				1 - Ooli Oampie i					TI	PH
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	mine	ral oil
	Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg	/kg)
USI	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24		
Washington State De	partment of Ecology (2)								4,0	000
Identification	Sample Date									
			E	xcavation Phase 1	1 Soil Samples					
SC-102	1/26/2015	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
SC-103	1/26/2015	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
SC-104	1/27/2015	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	490	A01
SC-105	1/27/2015	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	49	J
SC-106	1/27/2015	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	160	A01
BC-275	1/26/2015	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
BC-276	1/26/2015	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
BC-277	1/27/2015	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	25	J
BC-278	1/27/2015	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<50	
BC-279	1/27/2015	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
BC-280	1/27/2015	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
BC-281	1/27/2015	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
			E	xcavation Phase 2						
S-1	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22	J
S-2	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<49	
S-3	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	61	
S-4	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	27	J
S-5	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<50	
S-6	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<51	
S-7	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<51	
S-8	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-9	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<49	
S-10	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
S-11	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
S-12	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<49	
S-13	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<51	
S-14	1/18/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<49	
S-15	1/18/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	34	J
S-16	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
S-17	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-1	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-2	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-3	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-4	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-5	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-6	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-7	1/18/2016	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

									TPH
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	mineral oil
	Units	(mg/kg)							
	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	
lashington State De	partment of Ecology (2)								4,000
Identification	Sample Date								
B-8	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-9	1/18/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50
B-10	1/18/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50
B-11	1/18/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50
B-12	1/18/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50
B-13	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-14	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-15	1/18/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50
B-16	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-17	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-18	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-19	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50
B-20	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50
B-21	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-22	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-23	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-24	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0033 J	<50
B-25	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-26	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-27	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-28	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-29	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-30	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-31	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	29 J
B-32	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-33	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50
B-34	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	27 J
B-35	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	20 J
B-36	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-37	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-38	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-39	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-40	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-41	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-42	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-43	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-44	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-45	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-46	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50

Table 1 - Soil Sample Analytical Results

	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260		PH eral oil
	Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		g/kg)
USI	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	, ,	<i>y</i> 3/
	partment of Ecology (2)								4,	000
Identification	Sample Date									
B-47	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-48	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-49	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-50	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	30	J
B-51	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	36	J
B-52	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-53	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-54	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-55	1/18/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-56	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-57	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-58	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-59	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-60	1/18/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	29	J
			E	Excavation Phase 3	Soil Samples					
S-30	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	170	
S-31	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	47	J
S-32	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	130	
S-33	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	39	J
S-34	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
S-35	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	20	J
S-18	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
S-19	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
S-20	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
S-21	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	21	J
S-22	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
S-23	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	40	J
S-24	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	320	A01, Z1
S-25	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	61	
S-26	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	72	A01, Z1
S-27	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	29	J
S-28	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	110	A01, Z1
S-29	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	64	
B-61	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-62	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-63	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-64	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-65	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-66	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260		PH eral oil
	Units	(mg/kg)		g/kg)						
USE	PA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	ζ	55/
	partment of Ecology (2)								4,	,000
Identification	Sample Date									T
B-67	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	39	J
B-68	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	150	
B-69	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-70	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	53	Z1a
B-71	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	40	J
B-72	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-73	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	70	Z1a
B-74	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-75	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-76	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-77	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	62	Z1a
B-78	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	130	Z1a
B-79	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-80	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	43	J
B-81	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	27	J
B-82	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	360	A01, Z1b
B-83	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	38	J
B-84	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-85	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-86	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-87	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-88	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-89	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-90	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-91	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-92	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-93	1/20/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-94	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-95	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	130	Z1a
B-96	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-97	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	59	A01
B-98	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	70	
B-99	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-100	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-101	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-102	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-103	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-104	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-105	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

										PH
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260		ral oil
	Units	(mg/kg)	(mg	J/kg)						
USE	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24		
Washington State De	partment of Ecology (2)								4,0	000
Identification	Sample Date									
B-106	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-107	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-108	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-109	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-110	1/20/2016	< 0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	23	J
B-111	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-112	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21	J
B-113	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	140	J, A01
B-114	1/20/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	250	A01
B-115	1/20/2016	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	27	J
B-116	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-117	1/20/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-118	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-119	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-120	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-121	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-122	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	21	J
B-123	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-124	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-125	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-126	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-127	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-128	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	40	J
B-129	1/20/2016	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-130	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-131	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-132	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-133	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-134	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-135	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<50	
B-136	1/20/2016	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-137	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-138	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-139	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-140	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22	J
B-141	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-142	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-143	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-144	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	TPH mineral oil
	Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
USE	PA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	\ 3 3/
	partment of Ecology (2)								4,000
Identification	Sample Date								
B-145	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-146	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-147	1/20/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
			E	xcavation Phase 4	Soil Samples				
B-148	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-149	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-150	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-151	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-152	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-153	1/21/2016	< 0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	26 J
B-154	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-155	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-156	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.035	<0.0100	<50
B-157	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-158	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-159	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-160	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-161	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-162	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-163	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-164	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-165	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21 J
B-166	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-167	1/21/2016	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-168	1/21/2016	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-169	1/21/2016	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22 J
B-170	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-171	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-172	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-173	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-174	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-175	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-176	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-177	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21 J
B-178	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-179	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-180	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	27 J
B-181	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50
B-182	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	36 J

Table 1 - Soil Sample Analytical Results

	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	TP miner	
	Units	(mg/kg)	(mg/							
Her	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	(ilig/	ry)
	partment of Ecology (2)								4,0	00
Identification	Sample Date							<u> </u>	4,0	
B-183	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-184	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-185	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-186	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	36	J
B-187	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-188	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	54	
B-189	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	23	J
B-190	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-191	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-192	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-193	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	20	J
B-194	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	44	J
B-195	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	62	
B-196	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-197	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-198	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	53	
B-199	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	29	J
B-200	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	63	
B-201	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	49	J
B-202	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	51	
B-203	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	63	
B-204	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	72	
B-205	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	410	A01
B-206	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	4,600	A01
B-207	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	30	J
B-208	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22	J
B-209	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	53	
B-210	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	
B-211	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	79	
B-212	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	48	J
B-213	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	53	
B-214	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-215	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22	J
B-216	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-217	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-218	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	150	
B-219	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	93	
B-220	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	41	J
B-221	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	130	

Table 1 - Soil Sample Analytical Results

									TP	
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	minera	
	Units	(mg/kg)	(mg/	kg)						
	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24		
Washington State De	partment of Ecology (2)								4,00	10
Identification	Sample Date									
B-222	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	260	
B-223	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	72	
B-224	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	28	J
B-225	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-226	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-227	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-228	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-229	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	
B-230	1/21/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	23	J
B-231	1/21/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	80	
B-232	1/21/2016	< 0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	28	J
B-233	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-234	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21	J
B-235	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	0.069	<0.0100	<0.0100	28	J
B-236	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	41	J
B-237	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	54	
B-238	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-239	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	51	
B-240	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-241	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	23	J
B-242	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-243	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-244	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-245	1/21/2016	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	20	J
B-246	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	68	
B-247	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	33	J
B-248	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-249	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-250	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
B-251	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	<50	
B-252	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-253	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-254	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-255	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-256	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	20	J
B-257	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-258	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	30	J
B-259	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	22	J
B-260	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260		PH eral oil
	Units	(mg/kg)		g/kg)						
USF	EPA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24	(;	<u>)'''8/</u>
	partment of Ecology (2)								4.	000
Identification	Sample Date								<u> </u>	
B-261	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	21	J
B-262	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-263	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
B-264	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	42	J
B-265	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	61	
S-36	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-37	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-38	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-39	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<50	
S-40	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	23	J
S-41	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-42	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	21	J
S-43	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-44	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	33	J
S-45	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	A01
S-46	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-47	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	60	A01
S-48	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	620	A01
S-49	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	130	A01
S-50	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	A01
S-51	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1,000	A01
S-52	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1,100	A01
S-53	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	110	A01
S-54	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	68	
S-55	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	66	
S-56	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	160	A01
S-57	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	A01, Z1
S-58	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	59	Z1
S-59	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	49	J
S-60	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	620	A01, Z1
S-61	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-62	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-63	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-64	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-65	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-66	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-67	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-68	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-69	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

									TI	PH
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260		ral oil
	Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg	ı/kg)
USE	PA Residential RSL ⁽¹⁾	4.1	0.20	0.17	0.23	0.23	0.24	0.24		
Washington State De	partment of Ecology (2)								4,0	000
Identification	Sample Date									
S-70	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-71	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-72	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
S-73	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	31	J
S-74	1/21/2016	< 0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	< 0.0100	<0.0100	170	A01
S-75	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	80	Z1
S-76	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	30	J
S-77	1/21/2016	< 0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	29	J
S-78	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	95	
S-79	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	51	
S-80	1/21/2016	<0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	< 0.0100	<0.0100	33	J
S-81	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	110	A01
S-82	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	580	A01
S-83	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	100	
S-84	1/21/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	80	
S-85	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	860	A01
S-86	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	270	A01
S-87	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	120	
S-88	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	38	J
S-89	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	72	
S-90	1/21/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	37	J
				tion Phase 5 Com			•	•	•	
SC-91	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	37	J
SC-92	1/25/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	53	J
SC-93	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	43	J
SC-94	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	23	J
SC-95	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	73	
SC-96	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	52	J
SC-97	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	62	
BC-266	1/25/2016	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	35	J
BC-267	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	32	J
BC-268	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	32	J
BC-269	1/25/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	58	
BC-270	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	44	J
BC-271	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	32	J
BC-272	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	
			Excava	tion Phase 6 Com	posite Soil Samp					
SC-98	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	30	J
SC-99	1/26/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50	

Table 1 - Soil Sample Analytical Results

Analy Uni		PCB 1016 (mg/kg)	PCB 1221 (mg/kg)	PCB 1232 (mg/kg)	PCB 1242 (mg/kg)	PCB 1248 (mg/kg)	PCB 1254 (mg/kg)	PCB 1260 (mg/kg)	mine	PH ral oil /kg)
USEPA Residential RSL		4.1	0.20	0.17	0.23	0.23	0.24	0.24		
Washington State De	partment of Ecology (2)								4,0	000
Identification	Sample Date									
SC-100	1/25/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	26	J
SC-101	1/26/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	93	
BC-273	1/26/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	
BC-274	1/26/2016	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	<0.0100	<50	

Notes:

- 1 USEPA. 2015. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. Region 9.
- 2 Washington State Department of Ecology (2007) Concise Explanatory Statement and Responsiveness Summary for the Amendment of Chapter 173-340 WAC, Model Toxics Control Act Cleanup Regulation

Bold Indicates constituent detected above screening level (Washington State Department of Ecology)

- B Bottom samples
- BC Composite samples for bottom samples
- SC Composite samples for sidewall samples
- S Sidewall samples
- --- not analyzed or not available
- ESL Environmental Screening Level

mg/kg milligrams per kilograms

- < not detected above the specified reporting limit
- PCB polychlorinated biphenyl
- **RSL Risk-Based Screening Level**
- TPH total petroleum hydrocarbon
- USEPA United States Environmental Protection Agency
 - J Estimated Value (CLP Flag)
 - A01 Detection and quantitation limits are raised due to sample dilution.

Results are reported on a dry weight basis.

TPH motor oil analyzed by USEPA Method 8015B

PCBs analyzed by USEPA Method 8082

Table 2 - Transformer Oil and Water Sample Analytical Results

	Table 2 - ITalisi	1			,	1	I		TPH -
	Analysia	DCD 4046	DCD 4004	DCD 4000	DCD 4040	DCD 4040	DCD 4054	DCD 4200	Mineral Oil
Opening I don't the attent		PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	Oil
Sample Identification	Sample Date		(/1 \					
IND WOLLAND BACCO	4/40/0040		former Oil (4.00	4.00	1.00	4.00	
IND. KOHLMAN B13900	1/13/2016	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
IND. WESTINGHOUSE 60SB1031	1/13/2016	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	288	
IND. ALLIS CHALMERS 2846551	1/13/2016	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
	Water Samples				•				
LAKEPORT COVE R-001	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0516	
LAKEPORT COVE R-002	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0211	
LAKEPORT COVE R-003	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0174	
LAKEPORT COVE L-001	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0051	
LAKEPORT COVE L-002	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	
	Water Sa	amples fror	n Culvert P	ressure Wa	sh (µg/L)				
CULVERT SOUTH MAIN R-001	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	0.0012	
CULVERT SOUTH MAIN R-002	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0040	
CULVERT SOUTH MAIN L-001	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0030	
CULVERT SOUTH MAIN L-002	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0038	
Water	Samples from Cle	ear Lake Ab	ove City of	Lakeport F	resh Wate	r Intake (µg	/L)		
CITY OF LAKEPORT INTAKE-001	1/14/2016	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	0.0119	
CITY OF LAKEPORT INTAKE-002	1/14/2016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0045	
	Wate	r Samples o	of Lakeport	Tap Water	(µ g/L)				
LAKEPORT TAP WATER	1/14/2016	< 0.0010	< 0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	
	Wate	er Samples	from Resid	ential Pier	(μ g/L)				
SHOREVIEW DRIVE UNITY #71	1/15/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	
SHOREVIEW DRIVE UNITY #70	1/15/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	
SHOREVIEW DRIVE UNITY #73	1/15/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	
		r Samples f	rom Lakep	ort Lagoon	(μ g/L)				
PEIR 1900 OUTLET	1/18/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	
LAKEPORT LAGOON OUTLET	1/18/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	
Surface Water Sampl									
SW-01	1/25/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000		2,700 A01
	Upgradient Su								,
UG-1	1/25/2016	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	<0.2000	530 J
55 1	1,20,2010	₹0.2000	₹0.2000	₹0.2000	₹0.2000	10.2000	10.2000	₹0.2000	

Table 2 - Transformer Oil and Water Sample Analytical Results

Notes:	
mg/kg	milligrams per kilograms
<	not detected above the specified reporting limit
PCB	polychlorinated biphenyl
TPH	total petroleum hydrocarbon
J	Estimated Value (CLP Flag)
A01	Detection and quantitation limits are raised due to sample dilution.
μg/L	micrograms per liter
	PCBs analyzed by USEPA Method 8082A

Table 3 - Wipe Sample Analytical Results

		Analyte Units	PCB-1016 (μg/100cm²)	PCB-1221 (μg/100cm²)	PCB-1232 (μg/100cm²)	PCB-1242 (μg/100cm²)	PCB-1248 (μg/100cm²)	PCB-1254 (μg/100cm²)	PCB-1260 (μg/100cm²)
	USEF	PA Cleanup Level	10	10	10	10	10	10	10
Sample Location	Sample Identification	Sample Date							
South Culvert - Inlet	Culvert-S-SI-W	1/28/2016	< 0.30	<0.30	<0.30	< 0.30	<0.30	<0.30	<0.30
North Culvert - Inlet	Culvert-S-NI-W	1/28/2016	<0.30	<0.30	<0.30	<0.30	<0.30	< 0.30	<0.30
South Culvert - Effluent	Culvert-S-Ef-W	1/28/2016	< 0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
North Culvert - Effluent	Culvert-N-Ef-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
	MS-1-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Main Street heading	MS-2-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
south	MS-3-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
	MN-1-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
	MN-2-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
	MN-3-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Main Street heading	MN-4-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
north	MN-5-W	1/28/2016	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
	MN-6-W	1/28/2016	< 0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
	MN-7-W	1/28/2016	< 0.30	<0.30	<0.30	< 0.30	<0.30	< 0.30	<0.30
	Blank Hexane Wipe	1/28/2016	< 0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30

Notes:

PCB analyzed by USEPA Method 8082

< not detected above the specified reporting limit

PCB polychlorinated biphenyl

µg/cm² micrograms per centimeter square

USEPA United States Environmental Protection Agency

Table 4 - Asphalt and Concrete Sample Analytical Results

									TPH	
	Analyte	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	mineral	
	Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/k	g)
Sample Identification	Sample Date									
			Asphalt S	amples from Indu	strial Avenue					
IA-1	1/27/2015	< 0.2300	< 0.2300	< 0.2300	< 0.2300	<0.2300	< 0.2300	< 0.2300	8600	A01
IA-2	1/27/2015	< 0.2700	< 0.2700	< 0.2700	<0.2700	<0.2700	<0.2700	< 0.2700	6500	A01
IA-3	1/27/2015	< 0.2700	<0.2700	< 0.2700	< 0.2700	<0.2700	< 0.2700	< 0.2700	8700	A01
			Asphalt S	amples from Main	Street South					
MS-1	1/27/2015	< 0.2700	< 0.2700	< 0.2700	<0.2700	<0.2700	<0.2700	< 0.2700	9200	A01
MS-2	1/27/2015	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	8400	A01
MS-3	1/27/2015	< 0.2300	< 0.2300	< 0.2300	<0.2300	<0.2300	< 0.2300	< 0.2300	7900	A01
			Asphalt S	Samples from Main	Street North					
MN-1	1/27/2016	< 0.2700	<0.2700	<0.2700	<0.2700	<0.2700	<0.2700	< 0.2700	5500	A01
MN-2	1/27/2016	< 0.2700	<0.2700	<0.2700	<0.2700	<0.2700	<0.2700	< 0.2700	4300	A01
MN-3	1/27/2016	<0.2500	< 0.2500	< 0.2500	< 0.2500	<0.2500	< 0.2500	< 0.2500	10000	A01
MN-4	1/27/2016	< 0.2700	< 0.2700	< 0.2700	<0.2700	<0.2700	< 0.2700	< 0.2700	9300	A01
MN-5	1/27/2016	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	< 0.3000	7100	A01
MN-6	1/27/2016	< 0.2700	<0.2700	< 0.2700	< 0.2700	<0.2700	< 0.2700	< 0.2700	6200	A01
MN-7	1/27/2016	< 0.2500	< 0.2500	< 0.2500	< 0.2500	<0.2500	< 0.2500	< 0.2500	9600	A01
		C	Concrete Sample	from the Inlet Sid	e of Northern Cul	vert				
Culvert-S-SI	1/28/2016	< 0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	150	
		Coi	ncrete Sample fr	om the Inlet Side	of the Southern C	ulvert				
Culvert-S-NI	1/28/2016	<0.0100	<0.0100	< 0.0100	< 0.0100	<0.0100	< 0.0100	< 0.0100	56	
		Cond	rete Sample froi	m the Effluent Side	e of the Southern	Culvert				
Culvert-S-Ef	1/28/2016	<0.0100	< 0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	< 0.0100	27	J
		Cond	rete Sample fro	m the Effluent Sid	e of the Northern	Culvert				
Culvert-N-Ef	1/28/2016	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	25	J
Notos:	•									

Notes:

mg/kg milligrams per kilograms

< not detected above the specified reporting limit

PCB polychlorinated biphenyl

TPH total petroleum hydrocarbon

USEPA United States Environmental Protection Agency

A01 Detection and quantitation limits are raised due to sample dilution.

J Estimated Value (CLP Flag)

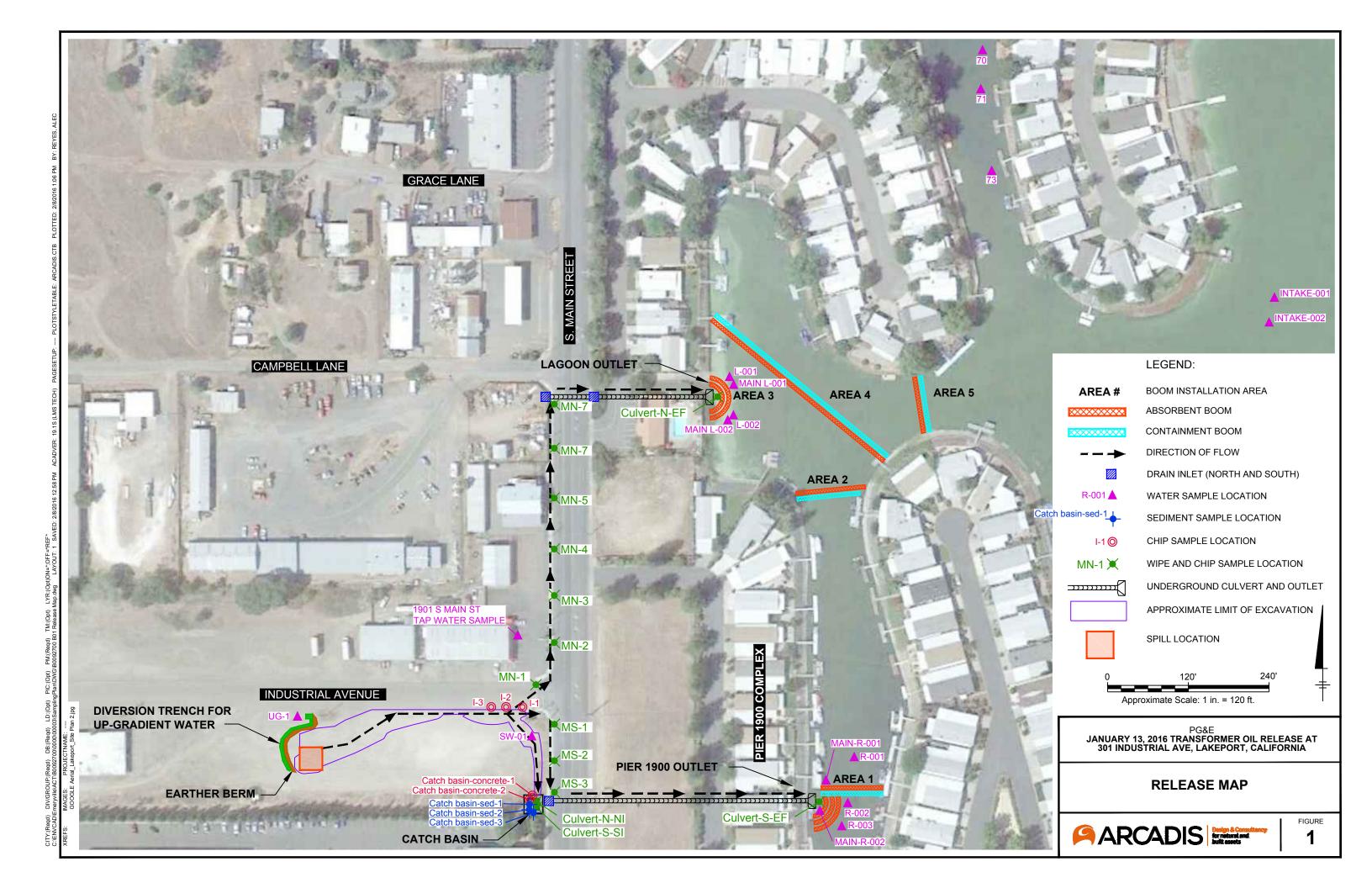
Results are reported on a dry weight basis.

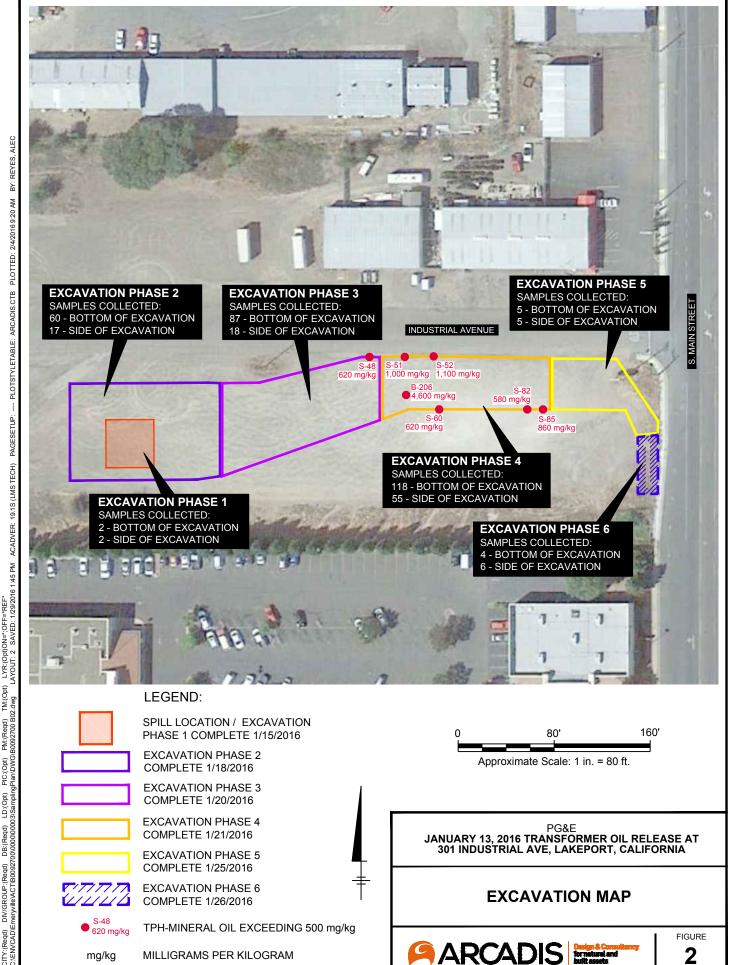
TPH mineral oil analyzed by USEPA Method 8015B

PCBs analyzed by USEPA Method 8082

ARCADIS

Figures





TM:(Opt) PM:(Redd) PIC:(Opt) LD:(Opt) DB:(Redd) DIV/GROUP:

ARCADIS

Attachment A

Timeline

JANUAF	RY 13,	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA NRC 1137977
Date	Time	Description
1/13/2016		A forklift operator from Wilson Construction Company (WCC), a contractor to Pacific Gas and Electric Company (PG&E), dropped a four-foot by four-foot plastic containment box with four PG&E transformers in it on an unpaved surface at their laydown yard at 301 Industrial Avenue (Release Site) in Lakeport, California. The ceramic bushings on three of the transformers broke and the three transformers released a total of approximately 27 gallons of transformer oil on the ground. The release was originally reported (incorrectly) as 40 gallons. It was raining lightly at the time. The three transformers that ruptured (and the PCB test results) were: 1) Westinghouse 10 kVA (PCB Aroclor 1260 at 288 mg/Kg)
		2) Allis Chalmers 10 kVA (PCBs not detected, less than 1.00 mg/Kg) 3) Kuhlman 37.5 kVA (PCBs not detected, less than 1.00 mg/Kg) The Westinghouse 10 KVA transformer released a maximum of four gallons of 288 parts per million ppm PCB transformer oil (approximately 3.7 grams of PCBs).
1/13/2016	0820	WCC telephoned Randy Dalby (PG&E Construction Inspector) and notified him of the release. Randy telephoned Howard Pickersgill (Howard) (PG&E Senior
1/12/2016	იგვი	Environmental Field Specialist) and reported the release. Howard arrived at the Release Site.
	0630	WCC constructed an earthen berm surrounding spill area. WCC placed oil-sorbent
1/13/2016		pads on the visible oil.
1/13/2016	0840	Randy Dalby arrives at the Release Site.
1/13/2016	0845	Howard telephoned WIPF Construction (WIPF) in Ukiah and requested a vacuum truck and two 21,000-gallon water storage (Baker-type) tanks.
1/13/2016	0900	Howard contacted PSC Industrial Outsourcing, Inc. (PSC) and requested resources to support the clean up.
1/13/2016	0930	Howard observed an oil sheen on the rain runoff at the Release Site, in the western gutter along South Main Street, and entering two storm drain inlets (south and north) along South Main Street. Each of these drain inlets discharge into twin 36-inch diameter concrete pipe culverts that extend east and discharge into Clear Lake Lagoon. The south culvert pipes are approximately 380 feet long. The north culvert pipes are approximately 240 feet long. Howard telephoned the Lake County Environmental Health Department and reported the release.
1/13/2016	1015	WIPF delivered a 1,000 gallon vacuum truck and PSC delivered two 21,000-gallon Baker tanks. With the vacuum truck, WIPF removed approximately 150 gallons of runoff water with visible oil sheen that was contained within the bermed area. WIPF transferred the oily water into one of the water storage tanks.
1/13/2016	1030	Ray Raminski (Director of Lake County Environmental Health Department) met Howard at the north drain inlet culvert outfall and they both observed an oil sheen on Lakeport Lagoon. Howard telephoned Jim Kennedy (City of the Lakeport Department of Public Works
		Foreman) and notified him of the release.

JANUAF	RY 13,	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA
Date	Timo	NRC 1137977 Description
Date	Tillie	Howard observed an oil sheen approximately ten feet wide extending approximately 30 feet into the lagoon from both culvert outfalls.
1/13/2016	1100	Doug Grider (City of Lakeport Public Works Superintendent) informs Howard that there is a City of Lakeport fresh water intake, which is currently off, located in Clear Lake, just outside the Lagoon.
		Workers from the City of the Lakeport Department of Public Works installed oil-
1/13/2016	1200	sorbent booms across the main Lagoon outlet and across the north end of the southern arm of the lagoon.
1/13/2016	1130	Lakeport Fire Department personnel arrived and witnessed some of the installation of the oil-sorbent booms in the lagoon.
1/13/2016		Howard inserted a sampling pipet inserted half way inside the Westinghouse 10 KVA transformer and determined that four gallons of oil remained in the bushing. The liquid capacity of the transformer was eight gallons. Therefore, a maximum of four gallons of 288 parts per million ppm PCB transformer oil (approximately 3.7 grams of PCBs) was released. Howard collected discrete oil samples from each of the three transformers for laboratory testing. Howard conducted a field clor-N-oil test (composite sample of the three transformers) that indicated the presence of PCBs greater than 50 parts per million (ppm).
1/13/2016	1330	Howard telephoned Tracy Stocks (California Office of Emergency Response - Cal OES), reported the release, and received report number 16-0274.
1/13/2016	1345	Howard telephoned Keith Weatherly (National Response Center - NRC), reported the release, and received report number 1137977.
1/13/2016	1400	Mitchell Goode (California Department of Fish and Wildlife - CDFW) telephoned Howard in response to the Cal OES notification. Howard provided a brief description of the release and the status of the mitigation measures.
1/13/2016	1410	PSC arrived at the Release Site with spill containment materials, oil-sorbent booms, and oil-absorbent pads.
1/13/2016	1525	Angela Sandoval and Steve Armann (Region 9 of the Environmental Protection Agency - EPA) telephoned Howard. Howard provided a description of the release and the status of mitigation measures. EPA requested periodic updates.
1/13/2016		Keith Smith (CDFW) met Howard at the Release Site.
1/13/2016		PSC subcontractor Patriot Environmental Services (Patriot) arrived and installed hard booms at Areas 1, 2, 4, and 5.
1/13/2016	1745	Howard and Keith Smith (CDFW) inspected the Release Site.
1/13/2016	1800	Howard telephoned Angela Sandoval and Steve Armann (EPA) and left voice messages regarding the analytical results from the transformer oil analysis.
1/13/2016	1845	Howard telephoned Mitchell Goode (CDFW) and provided an update.
1/13/2016	1920	PSC secured the Release Site by implementing best management practices (BMP) that included covering the release area with visquene, deployment of straw waddles around the release site and deployment of oil-sorbent booms at the south drain inlet.
1/14/2016	0645	PSC deploys additional straw waddle around the release site and deployment of additional oil-sorbent booms. Howard observed that all BMPs are in place. Howard observed minor local oil sheen. PSC removed the oil sheen with oil-sorbent pads.

JANUAF	RY 13,	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA
Date	Time	NRC 1137977 Description
Date	Tillic	PSC collected two surface water samples from the City of Lakeport fresh water
1/14/2016	0700	· · · · · · · · · · · · · · · · · · ·
		INTAKE-001
		Mark Brannigan (Director of City of Lakeport Municipal Sewer District) telephoned
1/14/2016	0815	Howard. Howard provided a brief description of the release and a status of mitigation
		measures.
1/14/2016	0830	Will Evans (Lake County Water Resources Program Coordinator) telephoned Howard. Howard provided a brief description of the release and status of mitigation
		Sergeant Don McPherson (Lake County Sherriff - boat patrol) met Howard at the
1/14/2016	0900	Release Site after examining the oil-sorbent booms in Lagoon. Howard provided an
		update on the oil-sorbent booms.
1/14/2016	0020	PSC delivered ten roll-off soil bins to the Release Site. Roll off bins are delivered to
1/14/2016	0930	the Release Site every day from this point forward.
		Carolyn Ruttan (Invasive Species Program Coordinator, Lake County Department of
1/14/2016		Water Resources) met with Howard at the Release Site. Carolyn informed Howard
		that Clear Lake is a quarantined lake therefore all vessels need to be inspected. PSC collected one tap water sample from a spigot located at 1901 South Main Street,
	1305	Lakeport Tire & Auto Service.
		PSC cleaned the south culvert using jetting tools equipped with five high pressure
		nozzles capable of 2,500 pounds per square inch pressure. PSC used approximately
		1,000 gallons of water supplied by a fire hydrant. PSC pushed the jetting tool through
		the entire length of the two culvert pipes and made three passes in each pipe. The
		rinsate water was allowed to enter the lagoon as PSC monitored the rinsate for
		potential oil sheen, which was not observed.
		PSC collected one initial lagoon water surface sample from the south outfall.
1/14/2016	1///5	R-001
1/14/2010	1600	
		PSC collected two post-jetting lagoon water surface samples from the south outfall.
		R-002
		R-003
		PSC collected two pressure wash rinsate samples from the south outfall.
		South Main R-001
		South Main R-002
		DOC also and the month and continue the control for the control of
		PSC cleaned the north culvert in the same fashion as the south culvert and used approximately 1,000 gallons for these culverts pipes, too.
		PSC collected one initial lagoon water surface sample from the north outfall.
		L-001
1/14/2016	1630-	
	1725	PSC collected one post-jetting lagoon water surface samples from the north outfall.
		L-002
		PSC collected two pressure wash rinsate samples from the outfall.
		South Main L-001
		South Main L-002

Y 13	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA
1 10,	NRC 1137977
Time	Description
	Howard telephoned Richard Kagel with K-Prime, Inc. Laboratory and was told that
コムダンコ	water sample results would be provided on 1/15/2016.
	PSC confirmed that the oil-sorbent booms on the lagoon were secure. PSC
1215	confirmed that the visquene on the Release Site was secure. Two PSC employees
	K-Prime Laboratory provided Howard with the surface water sample results.
	PSC began Phase 1 excavation of the spill location.
1100-	Patriot installed containment booms in Area 1, 2, 3, 4, and 5.
	Howard spoke with Christophe Descantes, PG&E Senior Cultural Resources
	Specialist. Howard discussed the need for cultural resource monitoring and was informed that there was no need for cultural monitoring due to the nature of
1100- 1500	Patriot installed absorbent booms in Area 1, 2, 3, 4, and 5.
	Howard telephoned Judy (receptionist) with Lake County Environmental Health
1228	Department and provided a summary of the Lagoon analytical results which was
	passed on to Ray Raminski.
1230	Howard telephoned CDFW Mitchell Goode and verbally provided water sample
1230	analytical results.
1225	Howard telephoned Carolynn Rutton with Lake County Water Resources Department
1233	and verbally provided water sample analytical results.
120E	Howard telephoned Steve Armann with EPA Region 9 and left a voice message
	regarding water sample analytical results.
	PSC completed spill location excavation (Phase 1). Excavation measured
	approximately 40'W x 40'L x 2'D. Due to anticipated heavy rain, PSC did not collect
	sidewall and bottom excavation samples.
4700	PSC lined the excavation with visquene, backfilled it with clean fill, and covered the
1/301	excavation with visquene.
	PSC placed excavated soil in roll off bins.
	PSC did not observe any free phase oil, oil sheen, or soil staining in the excavated
	soil or excavation. Groundwater was not encountered during the excavation.
	PSC inspected the visquene and BMPs. Two PSC employees stay overnight.
	PSC installed oil-sorbent booms around the north and south storm drain inlets along
/	South Main Street.
	PSC installed additional oil-sorbent booms at the north and south drain outlets.
	Gary Clift with Arcadis (PG&E's environmental remediation consultant) arrived.
0810	Howard and Gary conducted a site walk.
	Steven Stetson with Ahtna (PG&E's stormwater consultant) arrived. Steven
	assessed site for storm water runoff protection and recommended that PSC construct
	an arcuate water diversion trench west of the spill area to divert run-on from the west.
00-0	an area to aversion trener west of the spin area to avert full on from the west.
	PSC began construction of the diversion trench.
0900	PSC covered the proposed excavation area with visquene sheeting.
1000	Patriot installed 500 feet of absorbent booms at the City of Lakeport Freshwater
	PSC completed installation of the water diversion trench immediately west of the
	release location. The trench was three feet wide, three feet deep, one hundred feet
	long, and was lined with visquene.
1400 l	PSC visually inspected visquene and BMPs.
1	Time 1642 1815 0900 0945 1100- 1500 1100- 1500 1228 1235 1305 1730 1730 0730 0810 0840 0900 11000 1145

JANUAF	RY 13,	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA
Dete	T:	NRC 1137977
Date	Time	Description Description
1/17/2016	0730	PSC completed construction of straw-bail enclosed water-soil separator. PSC pumped run-on water from the diversion ditch to the straw bail separator and then the separated water was discharged to a ditch along the northern edge of the property where it eventually flowed into the north drain inlet on South Main Street.
1/17/2016	0800	PSC ordered a sediment tank to replace the straw bail separator for additional water storage capacity.
1/17/2016		Heavy rain began and Howard observed that the diversion ditch functioned properly. Howard did not observe visible sheen on the runoff in the South Main Street west
1/17/2016	1315	PSC visually inspected the visquene and BMPs.
1/17/2016	1530	Three local residents observed an oil sheen in the Lagoon at three different locations. PSC cleaned the area with oil-sorbent pads. PSC collected three water samples. SHOREVIEW DRIVE UNITY #71 SHOREVIEW DRIVE UNITY #71 SHOREVIEW DRIVE UNITY #71
1/17/2016		PSC received two larger sediment tanks that are 10,000 gallons and 20,000 gallons. Howard observes that the diversion ditch system is working effectively despite heavy rain.
1/18/2016	0630	Howard and PSC onsite.
1/18/2016	0730	Gary Clift, Tonya Russi, and Dylan Chappell with Arcadis onsite.
1/18/2016	0830	PSC begins Phase 2 excavation.
1/18/2016	1000	Patriot replaces absorbent boom at Area 2.
1/18/2016	1255	Arcadis begins collection of sidewall and bottom confirmation soil samples of Phase 2 excavation.
1/18/2016	1410	Arcadis completes sampling. PSC begins backfilling Phase 2 excavation. PSC lays visquene at the bottom of the excavation and begins to backfill. Approximately 1/4 of excavation exposed, sampled, and backfilled.
1/18/2016	1700	Arcadis collected 17 side wall soil samples and 60 bottom of excavation soil samples. Arcadis departs.
1/18/2016		PSC visually inspects visquene and BMPs. Two PSC staff were still onsite and two PSC staff were monitoring water oil-sorbent booms.
1/19/2016		Due to rain no excavation or soil sampling.
1/19/2016		Arcadis delivered Phase 2 excavation samples and Pier 1900 Outlet and Lakeport Lagoon Outlet water samples collected by PSC to Frontier Labs.
1/19/2016		Howard inspected Release site and Lagoon and there is no visible sheen.
1/19/2016	1000	Patriot replaces absorbent boom at Area 1.
1/19/2016	1045	Mitchell Goode with CDFW telephoned Howard and requested analytical results and figures.
1/19/2016	1345	Due to weather concerns, Howard telephoned Doug Grider with Lake County Special District and requested permission to remove the oil absorbent boom near the City of Lakeport inlet. Based on clean water analytical results near the inlet, Doug Grider granted permission to remove oil-sorbent booms near the City of Lakeport inlet. All other protective oil absorbent booms remained in place.
		Howard and PSC onsite.
		Gary Clift and Dylan Chappell with Arcadis onsite.
		PSC begins Phase 3 excavation to a depth of 2 feet below ground surface.
1/20/2016	1205	Arcadis collected sidewall and bottom excavation soil samples.

JANUAF	RY 13,	2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA
		NRC 1137977
Date	Time	Description
		Resident analytical available. BC analytical report ID 1601956.
		Pier 1900 Outfall - non-detect (ND)
1/20/2016	1400	Lakeport Lagoon Outlet - ND
1/20/2010	1400	Shoreview Drive Unity #71 - ND
		Shoreview Drive Unity #70 - ND
		Shoreview Drive Unity #73 - ND
1/20/2016	1530	Arcadis completed Phase 3 soil sampling.
1/20/2016	1700	Arcadis departed site.
		Arcadis collected 87 bottom of excavation and 18 sidewall soil samples.
1/20/2016	1800	PSC lined Phase 3 excavation with visquene and backfilled it.
		PSC visually inspected visquene and BMPs.
		Howard, PSC, and Gary Clift and Dylan Chappell with Arcadis onsite.
		Patriot replaced absorbent boom at Area 4.
		PSC begins Phase 4 excavation to a depth of 2 feet.
1/21/2016	1100	Arcadis and Nathan with Terra Consulting (Terra) collect soil samples.
1/21/2016	1200	PSC removed eight soil roll-off bins from site, approximately 104 yards of soil.
		AHTNA conducted continuous street sweeping on Industrial Avenue.
		PSC removes four roll off bins from the site
1/21/2016	1600	Arcadis completed Phase 4 soil sampling.
		Arcadis collected 117 bottom of excavation and 55 sidewall soil samples.
		PSC lines Phase 4 excavation with visquene and backfill with clean material.
1/21/2016	1730	PSC visually inspects visquene and BMPs.
		Howard and PSC onsite. Howard performed site walk and visually inspected
1/22/2016	0730	visquene and BMPs. No visible sheen on South Main St. or on Lagoon.
4/00/0040	4.400	Intermittent rain therefore no excavation or sampling.
1/22/2016	1430	PSC visually inspects visquene and BMP's.
		Howard onsite. Howard performs site walk and visually inspects visquene and
1/23/2016	0700	BMP's. Howard did not observe visible sheet on South Main Street gutter or in
		Lagoon.
4/00/0046		Detriet verdenen ehrevt hoove et Avec 2
1/23/2016		Patriot replaces absorbent boom at Area 3.
		Howard onsite. Howard performs site walk and visually inspects visquene and
1/24/2016	0700	BMP's. Howard did not observe visible sheet on South Main Street gutter or in
		Lagoon.
1/25/2016	0630	Howard and BSC ancita
		Howard and PSC onsite.
		Arcadis and Terra onsite.
		PSC began Phase 5 excavation to a depth of 2 feet. Patriot replaced absorbent boom at Area 5.
1/25/2016	1000	Waste to date:
		50 full soil bins
1/25/2016		12 soil bins hauled from the site
1/26/2016	0720	Approximately 6,500 gallons of water stored in baker tank
		PSC prepares to excavate Phase 1 and 6 areas.
		PSC begins excavating Phase 1 and 6 areas, simultaneously.
		Patriot replaced absorbent booms at Area 1 South culvert Outfall
1/20/2016	1100	PSC completes excavation of Phase 1 area and Arcadis begins sampling.

JANUAF	JANUARY 13, 2015 TRANSFORMER OIL RELEASE AT 301 INDUSTRIAL AVE, LAKEPORT, CA					
D (T:	NRC 1137977				
Date	Time	Description				
1/26/2016		PSC pressure washes approximately 200 feet of asphalt along the south edge of Industrial Avenue and the west gutter along Main Street toward the south drain inlet. The cleanup generates approximately 1,000 gallons of waste water that is collected by a vac truck. None of this cleanup water enters the drain inlet.				
1/26/2016		Howard offsite. Two PSC staff remain onsite overnight. The Phase 1 excavation area is covered but not backfilled.				
1/27/2016		Howard onsite and PSC onsite.				
1/27/2016		Rob Moniz with Arcadis onsite. Arcadis collects Phase 1 excavation confirmation soil samples. PSC backfills phase 1 excavation with clean fill material.				
1/27/2016		Howard telephoned Doug Grider with the City of Lakeport and asks if Arcadis can collect chip samples from the gutter for PCB analysis. Mr. Grider informs Howard that the gutter and sidewalk are new, he does not support the collection of chip samples, and recommends the collection of chip samples from the asphalt between the gutter and the street.				
1/27/2016		Arcadis collects asphalt chip samples along the edge of the concrete gutter along the western edge of Main Street.				
1/27/2016	1700	Howard offsite. 2 PSC staff remain on site overnight.				
1/28/2016	1000	Patriot replaced absorbent booms at Area 1.				
1/28/2016		Howard arrives onsite.				
1/28/2016		Rob Moniz with Arcadis and Nathan with Terra collect PCB wipe samples from asphalt, gutters, and culverts,				
1/28/2016		PSC secured straw waddles with sand bags and checked the condition of booms in anticipation of rain.				
1/28/2016	1515	Howard offsite. Two P:SC workers remain onsite to monitor BMPs.				
1/29/2016	0830	Howard arrives onsite. No excavation or sampling due to rain.				
1/29/2016	1245	Howard leaves site. Two PSC workers remain onsite to monitor BMP's.				
1/30/2016	1000	Patriot replaced absorbent booms at Area 3.				
1/30/2016		PSC remains onsite and monitor BMPs and stormwater				
1/31/2016		PSC remains onsite and monitor BMP's and stormwater				
2/1/2016	0730	Howard onsite and he conducts a site walk and inspects BMPs.				
2/1/2016		No excavation or sampling.				
2/1/2016	0925	PSC changes oil-sorbent booms at drain inlets due to sediment loading and observed debris buildup.				
2/1/2016		PSC observed that all other oil absorbent booms were in place and don't need to be replaced.				
2/2/2016	0630	Howard telephoned Trent Robinson (PSC) and Trent informed Howard that the Release Site is stable and that all BMP's in place.				
2/2/2016		PSC telephoned the City of Lakeport and was informed that there are no deep sumps in the drain inlets. There is a concrete vault in the north inlet. Depth and as build information not provided by the City of Lakeport. PSC is scheduled north drain inlet cleaning to occur on February 4, 2016.				
2/3/2016	0930	Howard onsite. Howard conducts site walk. Site is stable and all BMP's in place.				
2/4/2016	0800	PSC plans to meet with the City of Lakeport and clean the north inlet.				

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Appendix B

Photo log



Lakeport PG&E





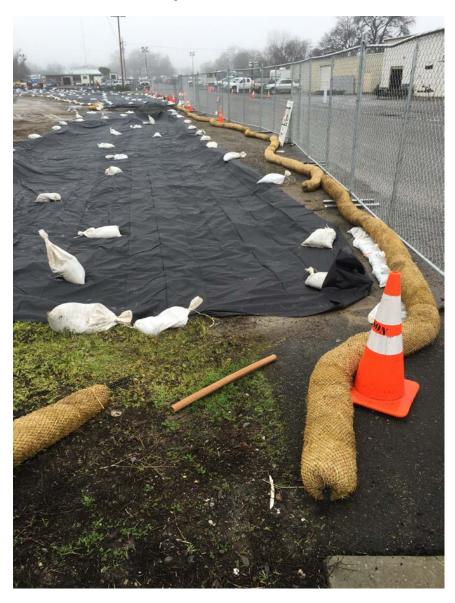
Lakeport PG&E

Excavation – Phase 1 sampling after fill removed.



Lakeport PG&E

Plastic sheeting over excavated and filled areas.





Lakeport PG&E

Crew washing street where puddles were noted during earlier clean-up activities.





Lakeport PG&E

Southern storm drain on Main Street.



Northern storm drain on Main Street.





Lakeport PG&E

Asphalt sampling location near southern storm drain (MS-3). Wipe samples taken in concrete gutter adjacent to asphalt sample (MS-3-W).





Lakeport PG&E

Asphalt sampling at the northern corner of Industrial Ave. and Main Street (MN-1)





Lakeport PG&E

Catch Basin at high water on January 16th, 2016.

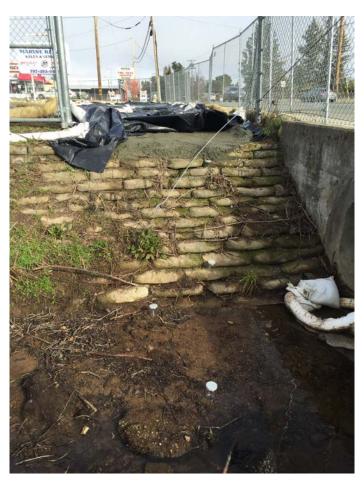


Catch Basin with low water level on February 5, 2016.



Lakeport PG&E

Sampling locations for Catch basin-Concrete-1 and -2, and Catch basin-sed-1 and -2.



Lakeport PG&E

Sampling locations for Catch basin-sed-2 and -3.





Lakeport PG&E

North Culver effluent/lake side







Lakeport PG&E

North culver effluent/lake side.

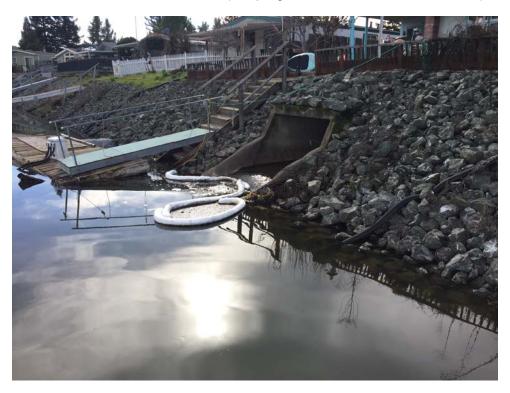






Lakeport PG&E

Southern culvert effluent/lake side (sampling Culvert-S-Ef and Culvert-S-Ef-W).





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Appendix C

Screening Levels

Table
Polychlorinated Biphenyls Screening Criteria:
Human Health and Ecological Screening Levels for Water

Criteria: Human Health	Groundwater (ug/l)	Surface Water (ug/l)
Residential - Human Health	NA	NA
Commercial - Human Health	NA	NA
Recreational - Human Health	NA	1.70E-04 (a)
Drinking Water: NAWQC	6.40E-05 (b)	6.40E-05 (b)
Drinking Water: California MCL	5.00E-01	5.00E-01
Drinking Water: SFRWQCB Risk- Based Goal	3.40E-02 (c)	3.40E-02 (c)
Drinking Water: Ceiling Value	1.60E+01 (d)	1.60E+01 (d)
Drinking Water: USEPA Risk-Based Goal	7.8E-03 (n)	7.8E-03 (n)
Criteria: Ecological Health	Groundwater (ug/l)	Surface Water (ug/l)
Fresh Water Aquatic Habitat Goal	1.40E-02 (e)	1.40E-02 (e)
USEPA NWQC CMC	NA	NA
Fresh Surface Water: Aquatic Communities (Oregon)		
Total PCBs	NA	1.40E-02 (f, g)
Aroclor 1016	NA	NA
Aroclor 1221	NA	2.80E-01 (h,m)
Aroclor 1232	NA	5.80E-01 (h,m)
Aroclor 1242	NA	5.30E-02 (h,m)
Aroclor 1248	NA	8.10E-02 (h,m)
Aroclor 1254	NA	3.30E-02 (h,m)
Aroclor 1260	NA	9.40E+01 (h,m)
Fresh Surface Water: Birds (Oregon)		
Total PCBs	NA	NA
Aroclor 1016	NA	NA
Aroclor 1221	NA	NA
Aroclor 1232	NA	NA
Aroclor 1242	NA	3.00E+03 (i)
Aroclor 1248	NA	NA
Aroclor 1254	NA	1.30E+03 (i)
Aroclor 1260	NA	NA
Fresh Surface Water: Mammals (Oregon)		
Total PCBs	NA	2.70E+02 (j, k)
Aroclor 1016	NA	1.30E+04 (I)

Aroclor 1221	NA	NA
Aroclor 1232	NA	NA
Aroclor 1242	NA	7.00E+02 (I)
Aroclor 1248	NA	NA
Aroclor 1254	NA	3.00E+02 (I)
Aroclor 1260	NA	NA

(a) = USEPA California Toxics Rule (CTR) 2000

http://www.epa.gov/fedrgstr/EPA-WATER/2000/May/Day-18/w11106.pdf

- (b) = US EPA National Recommended Water Quality Criteria: Bioaccumulation via ingestion of fish http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm
- (c) = Environmental Screening Levels (ESL) 2013

Table F-3: Summary of Drinking Water Screening Levels

SL is based on California MCL; value presented is risk-based screening level for carcinogenic effects at an excess cancer risk of 10⁻⁶.

http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml

(d) = Environmental Screening Levels (ESL) 2013

Table F-3: Summary of Drinking Water Screening Levels

SL is based on California MCL; value presented is ceiling value based on limit of solubility.

http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml

(e) = Environmental Screening Levels (ESL) 2013

Table F-4a: Summary of Selected Aquatic Habitat Goals

Fresh Water and Estuary Aquatic Habitat Goals are based on California (interim) Toxics Rule (in RWQCBCV 2000 and Federal Register 2000) FW Criterion Continuous Concentration.

- (f) = Oregon Water Quality Criteria [1992] Freshwater chronic criteria (OAR 340-41)
- (g) = USEPA [EPA 822-Z-99-001; April 1999] National Recommended Water Quality Criteria-Correction (chronic values)
- (h) = Oak Ridge National Laboratory (ORNL) TM-96/R2 [1996] Table 1 (Tier II secondary chronic value)
- (i) = NOAEL equivalent concentration in water for birds (represented by the American Robin) from ORNL TM-86/R3 [1996], Appendix D, Table 12
- (j) = NOAEL equivalent concentration in food (i.e., the dietary level in food of a chemical that would result in a dose equivalent to the NOAEL, assuming no other exposures) for mammals. Calculated per Equation (10) in ORNL TM-86/R3 [1996], with NOAEL values from Appendix A of same reference. Assumes diet is 10% soil- approximately the 95th percentile of estimated percent soil in diet (dry weight) values for mammals given in Tables 4-4 and 4-5 of the *Wildlife Exposure Factors Handbook* (EPA/600/R-93/187, 1993).
- (k) = Reflects limited re-assessment (based on new and/or different toxicology data) of values originally appearing in ORNL TM-86/R3.
- (I) = NOAEL equivalent concentration in drinking water (i.e., the level of a chemical in the drinking water of an animal that would result in a dose equivalent to the NOAEL, assuming no other exposures) for mammals. Calculated per Equation (22) in ORNL TM-86/R3 [1996], with NOAEL values from Appendix A of same reference. Assumes all drinking water is consumed from source contaminated with the given chemical.
- (m) = Tier II Aquatic Habitat Goal for chronic exposures (Suter and Tsao, 1996)
- (n) = USEPA Regional Screening Level November 2015 for Tap Water

CCC = criterion continuous concentration

CMC = criteria maximum concentration

NAWQC = National Ambient Water Quality Criteria for PCBs (USEPA, 2002)

FW = Fresh Water

SW = Salt Water

ug/l = micrograms per liter

MCL = maximum contaminant level

NA = Not available

TSCA, TMDL and MCLs are promulgated; other listed criteria are guidelines